

EVAR and open repair. In the current study, the authors sought to analyze the cost-effectiveness and cost-utility of EVAR compared with a standard open repair in the treatment of rAAA, with costs per 30-day and 6-month survival as outcome parameters. Resource use was determined from the Amsterdam Acute Aneurysm trial data. Analysis was performed from a provider perspective. All costs were calculated as if patients had been treated in the same teaching hospital (Onze Lieve Vrouwe Gasthuis). The study randomized 116 patients. The 30-day mortality was 21% after EVAR and 25% after open repair, for an absolute risk reduction of 4.4% (95% confidence interval [CI], -11.0% to 19.7%). At 6 months, the total mortality rate for EVAR was 28% compared with 31% for those assigned to open repair (absolute risk reduction, 2.4%; 95% CI, -14.2% to 19.0%). The mean cost difference between EVAR and OR was 5306 (95% CI, -1854 to 12,659) at 30 days and 10,189 (95% CI, -2477 to 24,506) at 6 months. The incremental cost-effectiveness ratio per prevented death was 120,591 at 30 days and 424,542 at 6 months. There was no significant difference in quality of life between EVAR and OR. EVAR was not superior regarding cost-utility, either. In this study, the mean costs of the EVAR group were substantially raised by eight patients who required conversion to open repair. At 6 months, the mean difference between the converted and nonconverted groups was 19,981. The total costs required to save one person's life with EVAR was 120,446. At 6 months, this leads to a number needed to treat of 41.7 patients at 424,881 per life saved.

Comment: Overall, the Amsterdam Ruptured Aneurysm Study has indicated that EVAR for treatment of rAAA is associated with a slightly lower mortality rate but a considerably higher cost. The paper raises the interesting point: At what point are advances in medical technology affordable, and at what point do they become cost-prohibitive?

Effect of the first federally funded US antismoking national media campaign

McAfee T, Davis KC, Alexander RL Jr, et al. *Lancet* 2013;382:2003-11.

Conclusions: A high-exposure media campaign can be effective in increasing population-level quit attempts from smoking. The Tips media campaign could have added from a third to almost half a million quality-adjusted life-years to the United States (US) population.

Summary: Smoking kills >5 million people globally each year, including 440,000 people in the US alone. The US Centers for Disease Control and Prevention delivered a national, 3-month antismoking campaign called Tips From Former Smokers (Tips) that started in March 2012, in which hard-hitting, emotionally evocative television advertising was featured, depicting smoking-related suffering in real people. In this paper, the authors assess the effects of the Tips media campaign. The authors performed baseline and follow-up surveys of nationally representative cohorts of adult smokers and nonsmokers. The national effect of the Tips campaign was estimated by applying rates of change in the cohort before and after the campaign to US census data. In the study, 3051 smokers and 2220 nonsmokers completed baseline and follow-up assessments. Of these, 2395 smokers (78%) and 1632 nonsmokers (74%) recalled seeing at least one Tips advertisement on television during the 3-month campaign. Quit attempts among smokers rose from 31.1% (95% confidence interval [CI], 30.3%-31.9%) at baseline to 34.8% (95% CI, 34.0%-35.7%) at follow-up, a 12% relative increase. The prevalence of abstinence at follow-up among smokers who made a quit attempt was 13.4% (95% CI, 9.7%-17.2%). Nationally, an estimated 1.64 million additional smokers made a quit attempt, and 220,000 (95% CI, 159,000-282,000) remained abstinent at follow-up. Recommendations by nonsmokers to quit grew from 2.6% at baseline to 5.1% at follow-up, and the prevalence of people talking with friends and family about the dangers of smoking rose from 31.9% (95% CI, 31.3%-32.5%) to 35.2% (95% CI, 34.6%-35.9%), resulting in an estimated 4.7 million additional nonsmokers recommending cessation services and >6 million talking about the dangers of smoking.

Comment: The Tips media campaign was a \$54 million initiative that featured true emotional stories by former smokers to increase awareness of the human suffering caused by smoking and to encourage quitting and motivate nonsmokers to communicate with family and friends about the dangers of smoking. The campaign started on March 19, 2012, and was completed on June 10, 2012. Overall, enough Tips advertisements were broadcast for about four of five smokers to see at least one message. About one-third of television advertisements were tagged with 1-800-QUIT-NOW linking viewers to their state telephone help line, and about two-thirds carried a link to www.smokefree.gov, the National Cancer Institute's quit assistance Web site. The study demonstrates that immediate, measurable successful effects can be associated with a high-intensity public health campaign. Focused antismoking media campaigns can be another weapon in the arsenal to end the tobacco epidemic and potentially save millions of premature deaths and decrease worldwide health care costs. Additional campaigns in the US and internationally seem both medically and economically justified.

Comparison of Pregabalin with Pramipexole for Restless Legs Syndrome

Allen RP, Chen C, Garcia-Borreguero D, et al. *N Engl J Med* 2014;370:621-31.

Conclusions: Pregabalin significantly improves treatment outcomes of restless legs syndrome (RLS) compared with placebo, and augmentation rates are significantly lower with pregabalin than with 0.5 mg pramipexole.

Summary: RLS, also known as Willis-Ekbom disease, is a predominantly nocturnal, rest-induced, distressing urge to move the legs. Anecdotally, it seems to occur in a number of patients with peripheral vascular disease, and clinically significant RLS effects ~2% to 3% of the European and American populations (Allen RP et al, *Sleep Med* 2010;11:31-7). Short-acting dopamine antagonists (pramipexole and ropinirole) and levodopa (Montplaisir J et al, *Neurology* 1999;52:938-43 and *Mov Disord* 2006;21:1627-35) have both been used for treatment. In this study, the authors sought to address questions about the efficacy of an alternative drug type in patients with RLS and about the iatrogenic nature of RLS augmentation. This was a 1-year blinded evaluation of efficacy and augmentation. Comparison was made between a dopaminergic drug pramipexole, administered at doses approved by the Food and Drug Administration for the treatment of RLS, with a nondopaminergic drug (pregabalin), an $\alpha_2\delta$ ligand with analgesic and anticonvulsant activity, also recently shown effective for treatment of RLS. This was a randomized, double-blind trial. Patients were randomly assigned to receive 52 weeks of treatment with pregabalin at a dose of 300 mg/d or pramipexole at a dose of 0.25 mg or 0.5 mg/d, or 12 weeks of placebo followed by 40 weeks of randomly assigned active treatment. The primary analyses involved a comparison of pregabalin and placebo over a 12-week period with the use of the International RLS Study Group Rating Scale, in which scores range from 0 to 40, with a higher score indicating more severe symptoms. The Clinical Global Impression of Improvement scale was also used to assess the proportion of patients with symptoms that were "very much improved" or "much improved." There was also comparison of RLS augmentation with pregabalin and pramipexole over a period of 40 or 52 weeks of treatment. A total of 719 participants received daily treatment, 182 with 300 mg pregabalin, 178 with 0.25 mg pramipexole, 180 with 0.5 mg pramipexole, and 179 with placebo. Over 12 weeks, the improvement (reduction) in mean scores on the International RLS scale was greater by 4.5 points among participants receiving pregabalin than among those receiving placebo ($P < .001$), and the proportion of patients with symptoms that were very much improved or much improved was also greater with pregabalin than with placebo (71.4% vs 46.8%, $P < .001$). The rate of augmentation over a period of 40 or 52 weeks was significantly lower with pregabalin than with pramipexole at a dose of 0.5 mg (2.1% vs 7.7%, $P = .001$) but not at a dose of 0.25 mg (2.1% vs 5.3%, $P = .08$). There were six cases of suicidal ideation in the group receiving pregabalin, three in the group receiving 0.25 mg pramipexole, and two in the group receiving 0.5 mg pramipexole.

Comment: RLS is an irritating disorder affecting many elderly patients, including those with peripheral vascular disease. The authors' data suggest that pregabalin is an effective treatment for the disorder and that worsening of the disorder can be due to an iatrogenic problem resulting from dopaminergic medications. One would hope that the days of treatment of RLS with a nocturnal dose of a mild sedative are over.

Prevalence of extracranial venous narrowing on catheter venography in people with multiple sclerosis, their siblings, and unrelated healthy controls: a blinded, case-control study

Traboulee AL, Knox KB, Machan L, et al. *Lancet* 2014;383:138-45.

Conclusions: Chronic cerebrospinal venous insufficiency is rare in both patients with multiple sclerosis and in healthy patients.

Summary: Multiple sclerosis affects >2 million people worldwide and is a leading cause of neurologic disability. In recent years, a vascular origin of multiple sclerosis has been proposed with the observation by Zamboni et al that multiple stenoses of the extracranial venous drainage system may be present in patients with multiple sclerosis. In the original paper, venous blockages were present in all 65 patients with multiple sclerosis examined. This study was with ultrasound and catheter venography (Zamboni P et al, *J Neurol Neurosurg Psychiatry* 2009;80:392-9). These combinations of blockages were not seen in healthy control participants who were studied by ultrasound imaging or in patients with other diseases who underwent catheter venography. It was therefore speculated that venous blockages have a central role in the pathogenesis of multiple sclerosis and that treatment with venoplasty may improve the course of the disease (Zamboni P et al, *J Vasc Surg* 2009;50:1348-58). Zamboni et al then performed an unblinded, uncontrolled interventional treatment using venoplasty in patients with multiple sclerosis and claimed improvements in disability and quality of life. However, independent research groups have not been able to reproduce the findings of Zamboni et al regarding the diagnosis of chronic cerebrospinal venous